WHAT IS CLAIMED IS:

Sub A34

1. A composition of matter selected from:

a) a substantially pure or recombinant polypeptide comprising at least three distinct nonoverlapping segments of at least four amino acids identical to segments of SEQ ID NO: 14;

b) a substantially pure or recombinant polypeptide comprising at least two distinct nonoverlapping segments of at least five amino acids identical to segments of SEQ ID NO: 14;

c) a natural sequence DCRS8 comprising mature SEQ ID NO: 14;

d) a fusion polypeptide comprising DCRS8 sequence;

e) a substantially pure or recombinant polypeptide comprising at least three distinct nonoverlapping segments of at least four amino acids identical to segments of SEQ ID NO: 17 or 20;

f) a substantially pure or recombinant polypeptide comprising at least two distinct nonoverlapping segments of at least five amino acids identical to segments of SEQ ID NO: 17 or 20;

g) a natural sequence DCRS9 comprising mature SEQ ID NO: 17 or 20; or

h) a fusion polypeptide comprising DCRS9 sequence.

2. The substantially pure or isolated antigenic polypeptide of Claim 1, wherein said distinct nonoverlapping segments of identity include:

a) one of at least eight amino acids;

b) one of at least four amino acids and a second of at least five amino acids;

c) at least three segments of at least four, five, and six amino acids, or

d) one of at least twelve amino acids.

Sub A35

3. The composition of matter of Claim 1, wherein said:

a) polypeptide:

i) comprises a mature sequence of Table 3 or 4;

ii) is an unglycosylated form of DCRS8 or DCRS9;

iii) is from a primate, such as a human;

iv) comprises at least seventeen amino acids of SEQ ID NO: 14 or 17;

v) exhibits at least four nonoverlapping segments of at least seven amino acids of SEQ ID NO: 14 or 17;

vi) is a natural allelic variant of DCRS8 or DCRS9;

vii) has a length at least about 30 amino acids;

viii) exhibits at least two non-overlapping epitopes which are specific for a primate DCRS8 or DCRS9;
ix) is glycosylated;
x) has a molecular weight of at least 30 kD with natural glycosylation;
xi) is a synthetic polypeptide;
xii) is attached to a solid substrate;
xiii) is conjugated to another chemical moiety;
xiv) is a 5-fold or less substitution from natural sequence; or
xv) is a deletion or insertion variant from a natural sequence.

4. A composition comprising:
a) a substantially pure DCRS8 or DCRS9 and another cytokine receptor family member;
b) a sterile DCRS8 or DCRS9 polypeptide of Claim 1;
c) said DCRS8 or DCRS9 polypeptide of Claim 1 and a carrier, wherein said carrier is:
i) an aqueous compound, including water, saline, and/or buffer; and/or
ii) formulated for oral, rectal, nasal, topical, or parenteral administration.

5. The fusion polypeptide of Claim 1, comprising:
a) mature protein sequence of Table 3 or 4;
b) a detection or purification tag, including a FLAG, His6, or Ig sequence; or
c) sequence of another cytokine receptor protein.

6. A kit comprising a polypeptide of Claim 1, and:
a) a compartment comprising said protein or polypeptide; or
b) instructions for use or disposal of reagents in said kit.

7. A binding compound comprising an antigen binding site from an antibody, which specifically binds to a natural DCRS8 or DCRS9 polypeptide of Claim 1, wherein:
a) said binding compound is in a container;
b) said DCRS8 or DCRS9 polypeptide is from a human;
c) said binding compound is an Fv, Fab, or Fab2 fragment;
d) said binding compound is conjugated to another chemical moiety; or
e) said antibody:
i) is raised against a peptide sequence of a mature polypeptide of Table 3 or 4;

ii) is raised against a mature DCRS8 or DCRS9;

iii) is raised to a purified human DCRS8 or DCRS9;

iv) is immunoselected;

v) is a polyclonal antibody;

vi) binds to a denatured DCRS8 or DCRS9;

vii) exhibits a Kd to antigen of at least 30 μM;

viii) is attached to a solid substrate, including a bead or plastic membrane;

ix) is in a sterile composition; or

x) is detectably labeled, including a radioactive or fluorescent label.

8. A kit comprising said binding compound of Claim 7, and:

a) a compartment comprising said binding compound; or

b) instructions for use or disposal of reagents in said kit.

9. A method of producing an antigen:antibody complex, comprising contacting under appropriate conditions a primate DCRS8 or DCRS9 polypeptide with an antibody of Claim 7, thereby allowing said complex to form.

10. The method of Claim 9, wherein:

a) said complex is purified from other cytokine receptors;

b) said complex is purified from other antibody;

c) said contacting is with a sample comprising an interferon;

d) said contacting allows quantitative detection of said antigen;

e) said contacting is with a sample comprising said antibody; or

f) said contacting allows quantitative detection of said antibody.

11. A composition comprising:

a) a sterile binding compound of Claim 7, or

b) said binding compound of Claim 7 and a carrier, wherein said carrier is:

i) an aqueous compound, including water, saline, and/or buffer; and/or

ii) formulated for oral, rectal, nasal, topical, or parenteral administration.

12. An isolated or recombinant nucleic acid encoding said polypeptide of Claim 1, wherein said:

a) DCRS8 or DCRS9 is from a human; or

b) said nucleic acid:

i) encodes an antigenic peptide sequence of Table 3 or 4;

SubA39

ii) encodes a plurality of antigenic peptide sequences of Table 3 or 4;
iii) exhibits identity over at least thirteen nucleotides to a natural cDNA encoding said segment;
iv) is an expression vector;
v) further comprises an origin of replication;
vi) is from a natural source;
vii) comprises a detectable label;
viii) comprises synthetic nucleotide sequence;
ix) is less than 6 kb, preferably less than 3 kb;
x) is from a primate;
xi) comprises a natural full length coding sequence;
xii) is a hybridization probe for a gene encoding said DCRS8 or DCRS9; or
xiii) is a PCR primer, PCR product, or mutagenesis primer.

13. A cell or tissue comprising said recombinant nucleic acid of Claim 12.

14. The cell of Claim 13, wherein said cell is:
a) a prokaryotic cell;
b) a eukaryotic cell;
c) a bacterial cell;
d) a yeast cell;
e) an insect cell;
f) a mammalian cell;
g) a mouse cell;
h) a primate cell; or
i) a human cell.

15. A kit comprising said nucleic acid of Claim 12, and:
a) a compartment comprising said nucleic acid;
b) a compartment further comprising a primate DCRS8 or DCRS9 polypeptide; or
c) instructions for use or disposal of reagents in said kit.

SubA39

16. A nucleic acid which:
a) hybridizes under wash conditions of 30 minutes at 30° C and less than 2M salt to the coding portion of SEQ ID NO: 13 or 16; or

Sub A39

b) exhibits identity over a stretch of at least about 30 nucleotides to a primate DCRS8 or DCRS9.

17. The nucleic acid of Claim 16, wherein:

a) said wash conditions are at 45° C and/or 500 mM salt; or
b) said stretch is at least 55 nucleotides.

18. The nucleic acid of Claim 16, wherein:

a) said wash conditions are at 55° C and/or 150 mM salt; or
b) said stretch is at least 75 nucleotides.

19. A method of modulating physiology or development of a cell or tissue culture cells comprising contacting said cell with an agonist or antagonist of a mammalian DCRS8 or DCRS9.

20. The method of Claim 19, wherein said cell is transformed with a nucleic acid encoding said DCRS8 or DCRS9 and another cytokine receptor subunit.

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